

Surgical Service Utilization and In-Patient Satisfaction in Surgical Service

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ABSTRACT

Background: The patient satisfaction study is an important and commonly used valid indicator for service quality improvement in healthcare institutions. The aim of this study was to assess the service utilization and patient satisfaction in patients admitted under surgical service in Bir Hospital.

Methods: A prospective cross sectional analytical study was conducted in Bir Hospital, National Academy of Medical Sciences from February 2021 till June 2023. The patient satisfaction data was collected using the SAPS scale after obtaining ethical clearance from the Institutional Review Board. Data were entered and analyzed in Statistical Package for the Social Sciences version 20.0.

Results: There were 152 patients included in the study categorized into conservative treatment group, elective surgery group and emergency surgery group. 32.9%(50) patients were “very satisfied”, 62.5%(95) patients were “satisfied”, 2.6%(4) were “neither satisfied nor dissatisfied” and 2%(3) were “dissatisfied” with the effect of their treatment/care. The mean satisfaction score in conservative treatment group was 22.13 ± 2.53 as compared to the mean satisfaction in elective surgery group which was 21.11 ± 2.55 ($P=0.036$) and the mean satisfaction score in emergency surgery group which was 21.66 ± 2.68 ($P=0.64$).

Conclusions: The mean score and proportion of patient satisfaction regarding service utilization in patients admitted under surgical service were high with satisfaction score higher in emergency surgery group among the operative groups in Bir Hospital, National Academy of Medical Sciences.

Keywords: Patient satisfaction; service utilization; surgical service.

INTRODUCTION

The evaluation of patient satisfaction was mandatory for all French hospitals in 1996.¹ The caring behavior enacted by the health service provider determine a consistent proportion of patient satisfaction.² Patient satisfaction may provide information about a hospital's ability to provide good service.³ There is a significant association between patient satisfaction scores and several objective measures of surgical quality.^{4, 5, 6} A descriptive cross-sectional study conducted in Bir Hospital among 94 outpatients showed that overall satisfaction was 74.7% which was concluded as high level of satisfaction.⁷ There are many priority health research areas identified by the Nepal Health Research Council out of which the areas of service utilization and patient satisfaction have been identified as national health research priorities in Nepal.^{8, 9} Short Assessment of Patient Satisfaction (SAPS) is reliable and valid scale

to assess patient satisfaction.¹⁰ The aim of this study was to assess patient satisfaction in surgical service in Bir Hospital.

METHODS

Nepal is a country in South-Asia with government run public hospitals, private hospitals and community hospitals. Bir Hospital is a Nepal government run academic hospital under National Academy of Medical Sciences in Kathmandu, Nepal.¹¹ A prospective cross sectional analytical study was conducted in Bir Hospital, National Academy of Medical Sciences from February 2021 till June 2023. The study participants were the patients admitted in Department of Surgery in Male Surgical Ward, Female Surgical Ward and High Dependency Unit for surgical care in Bir Hospital, National Academy of Medical Sciences, Nepal . The consecutive sampling technique was used to select participants from admission

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register book in Male Surgical Ward, Female Surgical Ward and High Dependency Unit. The total sample size calculated was 152. The operational definitions used were - "Surgical service utilization" - The utilization of surgical service (emergency surgery, elective surgery or conservative management) at Department of Surgery in Bir Hospital, National Academy of Medical Sciences and "Patient Satisfaction Score" - The score for the research participant calculated using the Short Assessment for Patient Satisfaction (SAPS) scale.¹⁰ The Inclusion criteria were patients admitted in General surgery who have undergone elective surgery, emergency surgery or conservative management, age 14 years to 90 years, male and female gender. The Exclusion criteria were patients in Male surgical ward, Female Surgical ward or High Dependency Unit who have been transferred from other department than General Surgery, patient with diagnosed psychiatric co-morbidity and who denies written informed consent. The data was collected using a questionnaire designed for collecting data on surgical service utilization and patient satisfaction. The Short Assessment of Patient Satisfaction scale (SAPS) was incorporated in the questionnaire for collecting data on patient satisfaction. The SAPS scale was translated into Nepali language and back translated into English language to ensure validity. The questionnaire was administered to the patients admitted in Department of Surgery. The data entry was done in Microsoft Excel package. The data was analyzed using Microsoft Excel and Statistical Program for Social Sciences (SPSS) version 20.0 software. The proportion in patient demographics (age, sex) was compared using Chi square test. The mean score of patient satisfaction in different groups (elective surgery versus conservative group and emergency surgery versus conservative group) were compared using Analysis of Variance (ANOVA). The P value ≤ 0.05 was considered statistically significant. The study was approved from Institutional Review Board of National Academy of Medical Sciences in Nepal.

RESULTS

There were total 152 patients included in the study with 51 in conservative treatment group, 51 in elective surgery group and 50 in emergency surgery group. The most common diagnosis in conservative treatment group, elective surgery group and emergency surgery group was Acute cholecystitis (19.61%), cholelithiasis (15.79%) and Acute appendicitis (12.50%) respectively, (Table 1).

Table 1. Patient diagnosis in Conservative treatment group, elective surgery group and emergency surgery group.

Conservative Treatment Group	n	%
Acute cholecystitis	10	19.61
Biliary pancreatitis	9	17.65
Appendicular lump	8	15.69
Sub acute intestinal obstruction	8	15.69
Adhesive bowel obstruction	4	7.84
Acute appendicitis	3	5.88
Appendicular abscess	2	3.92
Cholangitis	1	1.96
Gall bladder perforation	1	1.96
Hepatic abscess	1	1.96
Enterocutaneous fistula	1	1.96
Obstructive jaundice	1	1.96
Post Graham's patch leak	1	1.96
Surgical site infection	1	1.96
Elective surgery group	n	%
Cholelithiasis	24	15.79
Inguinal hernia	13	8.55
Umbilical hernia	3	1.97
Biliary pancreatitis	2	1.32
Adenomyomatosis gall bladder	1	0.66
Carcinoma breast	1	0.66
Epigastric hernia	1	0.66
Hydrocele	1	0.66
Incisional hernia	1	0.66
Lipoma	1	0.66
Paraumbilical hernia	1	0.66
Perianal sinus	1	0.66
Recurrent appendicitis	1	0.66
Emergency surgery group	n	%
Acute Appendicitis	19	12.50
Duodenal perforation	5	3.29
Perforation peritonitis	5	3.29
Necrotising fasciitis	4	2.63
Obstructed inguinal hernia	2	1.32
Obstructed umbilical hernia	2	1.32
Diabetic foot	1	0.66
Extravesical hematoma	1	0.66
Foot abscess	1	0.66
Fournier's gangrene	1	0.66
Splenic infarction	1	0.66
Irreducible inguinal hernia	1	0.66
Left Iliac fossa mass	1	0.66
Liver injury	1	0.66
Necrotising pancreatitis	1	0.66
Obstructed femoral hernia	1	0.66
Hemoperitoneum	1	0.66
Pyoperitoneum	1	0.66
Gastric perforation	1	0.66

The mean age \pm SD in conservative treatment group, elective surgery group and emergency surgery group were 49.3 \pm 17.7, 42.6 \pm 15.8 and 40.0 \pm 20.0 years respectively. There were 62.7%(32) male and 37.2%(19) female in conservative treatment group, 41.1%(21) male 58.8%(30) female in elective surgery group and 80% (40) male and 20%(10) female in emergency surgery group. Out of 152 patients, 32.9%(50) patients were “very satisfied”, 62.5%(95) patients were “satisfied”, 2.6%(4) were “neither satisfied nor dissatisfied” and 2%(3) were “dissatisfied” with the effect of their treatment/care. (Figure1) 32.2% (49) were “very satisfied” and 59.2% (90) were “satisfied” with the explanations the doctor/ other health professional has given about the results of treatment/care, (Figure 2).

The mean satisfaction score in conservative treatment group was 22.13 \pm 2.53 as compared to the mean satisfaction in elective surgery group which was 21.11 \pm 2.55 (P=0.036) and the mean satisfaction score in emergency surgery group which was 21.66 \pm 2.68 (P=0.64).

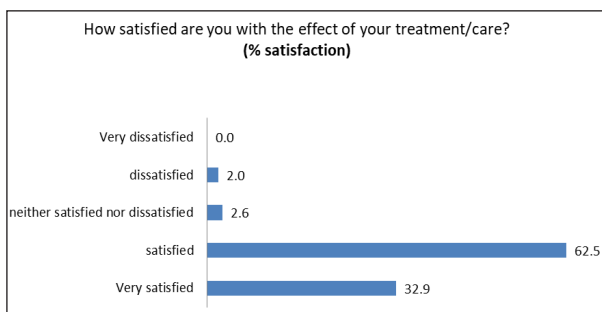


Figure 1. Overall Satisfaction (%) about the effect of care among patients admitted who underwent conservative treatment, elective surgery or emergency surgery.

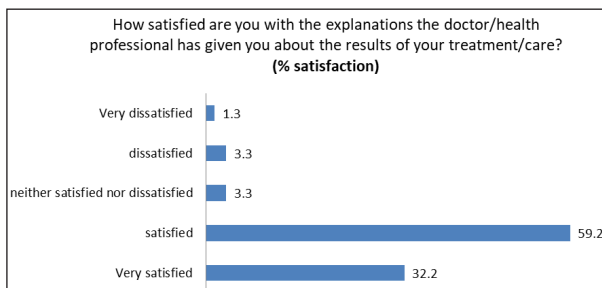


Figure 2. Overall Satisfaction (%) with the doctor/ health professional’s explanations among patients admitted in Department of Surgery who underwent conservative treatment, elective surgery or emergency surgery.

DISCUSSION

In our study, the mean satisfaction score in conservative treatment group was 22.13 \pm 2.53 as compared to the mean satisfaction in elective surgery group and emergency surgery group which were 21.11 \pm 2.55 (P=0.036) and 21.66 \pm 2.68 (P=0.64) respectively. Measurement of person-centered care as a key step towards ensuring accountability and action and quality of care improvement in High Quality health system in Sustainable Development Goals era.¹² The World Health Organization(WHO) has policy and practice article on measuring patient experience and satisfaction with care which highlights the importance of measures with clear purpose for accurate and reliable assessment of quality of care and the precision in using person-centered measures for the practice of delivering respectful and effective health care.¹³ Hawthorne G et al developed the Short Assessment of Patient Satisfaction(SAPS) scale based on a firm theoretical model of patient satisfaction and its descriptive system that covers the known dimensions contributing to patient satisfaction.¹⁴ In this study, the patient satisfaction in three groups of patients in surgery ward- conservative group, elective surgery group and emergency surgery group was evaluated using SAPS which showed that the patient satisfaction was significantly high in elective surgery group (P=0.036) as compared to emergency surgery group (P=0.64). This could be due to multiple episodes of communication between health care provider and patients before an elective surgery in outpatient clinics, pre-operative check-ups as compared to emergency surgery where these episodes of communication will be relatively less.

A study conducted in University Referral and Teaching Hospital in Ethiopia which aimed to determine patient satisfaction with perioperative surgical services showed that the overall level of patient satisfaction with perioperative surgical services was 98.1%.¹⁵ Mishra PH et al, in a study of patient satisfaction in a surgical unit of a tertiary care teaching hospital in New Delhi, India reported that 92% patients were satisfied with explanation about disease and treatment by doctor.¹⁶ In our study, the overall satisfaction with the effect of treatment and care, including “satisfied “ and “very satisfied” was 95.4%. This shows that the level of patient satisfaction in academic teaching hospitals seems to be high in low resource settings.

In a study done in public and private hospitals in eastern Nepal, more than 90% patients were satisfied on number of doctors available and confidence on the diagnosis, 16.2% were “highly satisfied” and 62.5% were “satisfied” on information about test and investigation”.¹⁷ A study

from Bhaktapur Hospital of Nepal using validated Patient Satisfaction Questionnaire III (PSQ-III) showed that 39% of patients were satisfied in the dimension of general satisfaction and concluded to conduct similar studies regularly at different levels of health facilities across the country to capture a wider picture of patient satisfaction at various levels.¹⁸ In Patan Hospital in Kathmandu valley, the overall satisfaction (very high and high satisfaction) of the patient with the behavioral competencies of doctors was 52.5%¹⁹ and 94.3% patients were satisfied with the nursing care.²⁰ In Civil Hospital in Kathmandu, 96% (95% CI (95.07-96.93)) respondents reported that they were satisfied regarding communication with their doctors²¹ which is similar to our finding of 91.4% overall satisfaction with the “explanation the doctor or health professional has given about the results of treatment and care”. A study done among patients treated with fixed dental prosthesis at Kathmandu Medical College showed that out of 102 participants enrolled in the study, 85.3% were in overall satisfied category with the fixed prosthesis at 95% confidence interval (93.5-81%).²² In Bir Hospital, the overall satisfaction among out patients was found to be 74.7%.⁴ In our study, using SAPS score, majority of the patients showed high patient satisfaction score with 62.5% “satisfied” and 32.9% “very satisfied”. This shows that the level of patient satisfaction with surgical services is high compared with previous studies conducted in the country and other countries in the world. The high level of patient satisfaction could be due to the professional standards maintained by the treating team and emphasis given by health professionals for information on treatment and care processes as well as health progress. The subsidized treatment cost by the government in state run hospitals could have also added to the high satisfaction level. In addition, to enhance perioperative satisfaction, the focus should be on enhancing communication skills and providing information that is appropriately tailored to the understanding of patients.²³

CONCLUSIONS

The patient satisfaction regarding service utilization in patients admitted under surgical service was found to be high with satisfaction score higher in emergency surgery group among the operative groups.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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